

### **REMARKS/ARGUMENTS**

The Applicant thanks the Examiner for the Office Action dated October 16, 2008.

#### **Claim Rejections – 35 USC 103**

The Applicant contests the Examiner's assertion that the present invention is obvious in view of the combined teachings of Perazza, Sekendur and Kotaki.

The Applicant has amended claim 1 so as to clarify its intended scope beyond any doubt. Accordingly, claim 1 (and claim 29) now specifies the feature of:

“computing a position of the nib from an observed perspective distortion on the imaged tag and a known spatial relationship between the nib and an optical axis of the pen, said axes being different from each other”

Basis for this amendment can be found at page 24, lines 19-24 of the specification, as well as Figure 8, which clearly shows the optical axis offset from the nib.

The newly introduced Kotaki appears to have little or no relevance to the optically imaging pen specified in claim 1. Kotaki provides a method by which a nib pressure applied to a conventional x-y digitizing tablet is correlated to a radius of a circle. The circle is representative of the “splay” or spread of a nib, which increases with increasing nib pressure. Kotaki teaches some special algorithms for determining the radius of this circle accurately.

By contrast, the present invention has nothing whatsoever to do with nib pressure and the calculation of a corresponding radius. Indeed, Kotaki does not even describe an optically imaging system, which is at the heart of the present invention.

The present invention addresses the problem of accurate determination of a nib position when an optical axis is offset from the nib (see Figure 8 by way of illustrating this problem). The Applicant's solution to this problem is to use perspective distortion observed on imaged tags in combination with known spatial relationships of the pen to determine the nib position. In this way, the pen can be used at various tilt angles without any loss of positional accuracy.

Perspective distortion is a characteristic of optical systems *e.g.* the distortion effect when a planar grid of dots is viewed at an angle. Kotaki does not even describe an optical system, and so it is difficult to understand how Kotaki can be of any relevance to the present invention. The Applicant submits that Kotaki unequivocally fails to describe anything relevant to “perspective distortion”.

Likewise, the Applicant submits that Kotaki’s algorithms relating to nib pressure have no relevance to the present invention. The present invention is not concerned with nib pressure.

In short, the Applicant submits that Kotaki fails to teach anything of relevance to the claims feature of “computing a position of the nib from an observed perspective distortion on the imaged tag and a known spatial relationship between the nib and an optical axis of the pen, said axes being different from each other”. Accordingly, it is submitted that the present invention is not obvious in view of Kotaki, when combined with Perazza and Sekendur.

It is respectfully submitted that all of the Examiner’s objections have been successfully traversed. Accordingly, it is submitted that the application is now in condition for allowance. Reconsideration and allowance of the application is courteously solicited.

Very respectfully,

Applicant/s: 

---

Kia Silverbrook



---

Paul Lapstun



---

Simon Robert Walmsley



---

Jacqueline Anne Lapstun

C/o: Silverbrook Research Pty Ltd  
393 Darling Street

Balmain NSW 2041, Australia

Email: kia.silverbrook@silverbrookresearch.com

Telephone: +612 9818 6633

Faxsimile: +61 2 9555 7762